

Pioneer Trail Research Presentation

LOLO TRAIL

The Historic Land Bridge

by

Steve F. Russell
Electrical Engineering and Computer Engineering
Iowa State University
Ames, Iowa 50011

Presented at the 1994 Fall Heritage Resources Program Seminar
USDA Forest Service, Region 1
Powell Ranger District, Idaho
October 31 - November 4
1994

PIONEER TRAIL RESEARCH
RR 3 BOX 309
AMES, IOWA 50014-5917

Copyright © 1994 by Steve F. Russell, Ames, Iowa
All Rights Reserved

Published by
PIONEER TRAIL RESEARCH
RR 3 BOX 309
AMES, IOWA 50014

Maps prepared by Steve F. Russell

Dedicated to the many hardy souls
that have travelled the Lolo Trail.

What is history but a fable agreed upon...

Napoleon I
1769-1821

One cannot explore the earth's surface from an observatory, nor by mathematics, nor by the power of logic; it must be done physically...

Caution might prevent, but with caution no results will be obtained. Risks must be taken, and there is an element in human affairs as fortune, good or bad.

Gustavus Cheyney Doan
1840 - 1892

LOLO TRAIL The Historic Land Bridge

ABSTRACT

On the Clearwater and Lolo National Forests, in the mountains of Northern Idaho and Western Montana, there is an ancient trail system that has been used for hundreds of years as a land bridge between the Columbia River basin and the Missouri River basin. The approximate route of this trail is westward up Lolo Creek from Lolo, Montana to Lolo Pass and then along the dividing ridge between the North and Middle Forks of the Clearwater River until reaching the Weippe Prairie near Weippe, Idaho. Recent research, using a combination of historical records, computer analysis tools, and extensive field exploration, has now provided conclusive proof that the erosion trace of this ancient trail system still exists and can be located in many places along the 130-mile length of the trail.

The first use of this land bridge, by aboriginal peoples traveling on foot, occurred at least hundreds of years ago and possibly more than a thousand years ago. These people left an archaeological record that is just now beginning to be examined. When the Native American tribes of the Northwestern United States acquired horses over two hundred years ago, the land bridge increased in importance because of the improved transportation provided by these horses. The use of horses also caused increased erosion along the old trail and created the extensive and deep tread that can still be found today.

In historical times, the trail was used primarily by two tribal groups, the Nez Perce on the west end and the Salish or Flathead on the east end. For the Nez Perce, the trail served three purposes. First, it was the main access route to the upper parts of the North and Middle Forks of the Clearwater River. Using any of several long ridges, easy access was available for nearly any part of these rivers. Second, it gave access to the "high" country where family groups could go for camping, berry and root gathering, hunting, and spiritual purposes. Third, it was the main route eastward to the buffalo hunting grounds in Central Montana. For the Salish, the trail provided access to the upper parts of Lolo Creek and to Packers Meadow but, what is most important, it was the main route to salmon fishing on the Lochsa River.

The historical era for the ancient trail began in 1805 when a government expedition called the Corps of Discovery, under the command of Lewis and Clark, followed the well-worn trail tread from Lolo, Montana to Weippe, Idaho. The purpose of the expedition was to explore the new land obtained by the Louisiana Purchase and to fulfill President Jefferson's dream of finding an easy portage between the two great rivers. In the decades following this expedition, traditional uses by the tribes continued while the trail also became increasingly important to the Non-Indian. Trail use by explorers, trappers, miners, military, and surveyors would bring a new era.

In 1831, a Hudson's Bay Company man, John Work, and a large party of people crossed the Lolo Trail eastward as part of fur trading activities. In 1854, John Mullan and a survey party explored the Lolo Trail route as part of the Pacific Rail Road Survey commissioned by the U. S. Congress. Mullan found the route unsuitable. In 1866, George B. Nicholson, a civil engineer, and Tah-tu-tash, a Nez Perce guide, did a distance and elevation survey while crossing the Lolo Trail, then known as the Northern Nez Perces Trail. Later that year, the ancient trail was used as the basis for a wagon road survey and the eventual construction of a pack trail between the Weippe Prairie and Lolo Pass. Today, this trail is known as the Bird-Truax Trail of 1866 and its tread can be found over its entire length.

Varied use of the trail by both Indian and Non-Indian occurred in the 1860s and 1870s until the 1877 war. Non-Indian use began to dominate after 1907 when the U.S. Forest Service started forest management and used the trail as the main access corridor. For the next three decades, many fire access trails were constructed down the ridges from the Lolo Trail. In 1934, the Lolo Motorway, from Powell to Musselshell Meadows, replaced the Bird-Truax Trail and motorized travel started along the ancient land bridge.

Today, the Lolo Trail System is in a remarkable state of preservation and has the potential of providing a unique experience and connection between the past and present. People exploring the route have the opportunity to experience "self discovery" of the trail treads and the beautiful vistas available along the trail. In many places, the trail traveler will experience the feeling of being the first modern person to follow in the footsteps of the ancient travelers.

This ancient land bridge needs to be managed and protected in such a way that travelers can enjoy its primitive beauty. Future generations will appreciate the opportunity to experience a personal connection with the many people and past cultures that have traveled route.

LOLO TRAIL: The Historic Land Bridge

INTRODUCTION

The Lolo Trail spans a land of history, exploration, courage, and danger. It is regrettable that we will never be able to fully learn about its early history but we must learn all we can through our research as well as our first-hand experience while travelling the trail. We can imagine that the early travelers faced hunger, potentially fatal accidents, enemies, fire, isolation, the grizzly bear and the mountain lion as they traversed the trail. However, we will never truly know of the joys and sorrows of the people that travelled this ancient route.

We are now embarking on a decade of discovery and preservation for the Lolo Trail System. Surveys and inventories conducted in the next decade will reveal the geographic extent of this system of trails and its many uses. Its importance, to the history of the Northwestern United States, remains to be fully discovered and documented by historians, archaeologists, and other researchers.

Over the centuries, the Lolo Trail has played a significant roll in the cultural heritage of the Nez Perce Tribe. Now, many tribal members are actively involved in the process of recovering and expanding their knowledge of this heritage. It is important that the process of discovery continues to involve the tribe.

The Lolo Trail also played a significant roll in the exploration of the early west. The Corps of Discovery under the command of Meriwether Lewis and William Clark travelled the route in 1805 and 1806. It was the toughest part of their journey. Today, the Lewis and Clark Trail Heritage Foundation is a major organization involved in the research and preservation of the legacy of the Corps of Discovery. Their members will be keenly interested in the results of the surveys and inventories for the Lolo Trail.

HISTORY OF THE TRAIL

At some time in our prehistoric past, the Lolo Trail was being used by the Northwest's aboriginal people as a major pathway between the Bitter Root Valley in Montana and the Clearwater River in Idaho. There is evidence that both the Nez Perces and the Flatheads (Salish) used this pathway. For example, the Flatheads used the trail to get to prime salmon fishing locations on the upper Lochsa River. The Nez Perces used the trail to travel to family camping areas in the mountains and to go to the buffalo hunting areas of central Montana.

The first recorded visit by white men to this area was by Lewis and Clark and the Corps of Discovery in 1805. They used the established aboriginal trail system to travel from the Bitter Root Valley of Montana to the Clearwater River and then on to the Pacific coast at the mouth of the Columbia River. Although nearly two centuries have passed since the time of Lewis and Clark, a faint, but discernable remainder of the trail tread they followed can still be found in many places on the Clearwater and Lolo National Forests.

In 1866, this ancient trail¹ was used as the basis of a government survey to locate a wagon road through the Bitter Root Mountains from Lewiston, Idaho to Virginia City, Montana. However, this wagon road was never built and the actual survey of 1866 covered only the portion of the route from the Weippe Prairie in Idaho to Lolo Pass on the Idaho-Montana border. There were many good reasons why the wagon road was not constructed, but chief among them were the high cost of labor and materials during the gold rush days, the ruggedness of the country, and the very short summer season in the high country. What the wagon road crew did do was survey and construct an excellent trail from Weippe Prairie to Lolo Pass, a trail we now call the Lolo Trail (or the Bird-Truax Trail after the men who supervised its construction). In many places, particularly on the narrow ridges and through the saddles,

¹The ancient trail was referred to as the Northern Nez Perces Trail by the survey party and its civil engineer, George B. Nicholson. This name was chosen to contrast this route with the more southerly route called the Southern Nez Perces Trail. Both trails led eastward to the Bitter Root Valley.

LOLO TRAIL: The Historic Land Bridge

the tread of the Bird-Truax Trail was laid down exactly on top of the ancient trail tread followed by Lewis and Clark.

In 1877, during the war between the non-treaty Nez Perce and the U.S. Government, the Lolo Trail was used by the Nez Perces² to retreat into Montana where they hoped to join forces with other tribes friendly, or at least neutral, to their plight. These Nez Perces, with their entire families and all of their possessions, including several hundred horses, would eventually travel a great distance through rugged mountains and hostile territory as they sought to avoid the U. S. military and attempt to reach sanctuary in Canada. For the reader interested in this history, the story of the Nez Perces courage, defeat, and eventual capture has been told in numerous books available in any public library. Recently, this entire route has been designated the Nee-Mee-Poo National Historic Trail³ and is currently being studied for further documentation and public interpretation.

In 1907, the U.S. Forest Service began establishing a trail system in the rugged mountains traversed by the Lolo Trail. For the main east-west route, they simply adopted the same trail constructed by the Bird-Truax crew in 1866 although, by now, it was exclusively being called the Lolo Trail⁴. Over the next 30 to 40 years, the Forest Service constructed many lateral trails to connect the Lolo Trail with other parts of the national forest. Most of the lateral trails are now abandoned but some are still maintained and used by hunters.

In the early 1900s, there was considerable interest in building a motor vehicle road, the "Lewis and Clark Highway", that would connect the Bitter Root Valley to the Clearwater Valley. Surveys for a railroad through the area had been conducted in 1854 by Captain John Mullan of the Pacific Railroad Survey and in 1908 by the Northern Pacific and Union Pacific Railroads but the route was deemed impractical. A road, however, would not be required to follow such a strict grade and line-of-travel. A complete Lochsa River survey was conducted around 1925 by the U.S. Geological Survey in support of both a road and the prospect of placing a dam on the Lochsa, but neither became a reality.

The Lewis and Clark Highway moved a step closer to reality when a single-lane dirt road was constructed over Lolo

²The courageous Nez Perces were surmounting very difficult obstacles trying to get their families, horses, and possessions over the difficult trail while being pursued by the army. One can still imagine their despair when hiking the historic trail. The feeling is nowhere stronger than at Howard Camp where the wind in the trees sometimes seems to be transformed into the sounds of crying children mixed with the sounds of adults grimly planning for their future and expressing their happiness at the success thus far.

³The Nee-Mee-Poo National Historic Trail was dedicated on Friday, July 19, 1991 at Packer Meadows, Lolo Pass. The author spent the day at these ceremonies. Several dignitaries and people associated with the Lolo Trail were in attendance. One was Merle Wells, a recognized expert in Idaho history and a past State Historic Preservation Officer. Winn Green, a former Supervisor of the Clearwater National Forest was dressed up in an authentic 1905 Forest Service uniform. Also in attendance were many officials from the USFS Region-1 Office, from the states of Montana and Idaho, and from Washington DC. The Nez Perces held a Pow Wow in the afternoon that featured much dancing and ceremonial drum playing. They had set up several ceremonial tepees and several elders and leaders were splendidly decked out in their traditional dress. J. Herman Reuben of Lapwai, Idaho and other tribal elders performed a sacred ceremony for the public. The audience had to remove all hats and no pictures were allowed. Herman prayed that all people in the future would enjoy the trail but respect it and protect it. Several of the authors friends and fellow trail enthusiasts were also in attendance: Tom Geouge, Jeff Fee, Del White, Horace Axtel, Sandi McFarland ...

⁴The name probably derives from a man who lived near the mouth of Grave Creek, a tributary of Lolo Creek in Montana. Original maps of the Northwest called this creek Lou-Lou Creek but the name was changed by the U.S. Board of Geographic Place Names.

LOLO TRAIL: The Historic Land Bridge

Pass from Lolo Hot Springs to Powell Ranger Station. It was started about 1925 and completed in 1928. It would be another 34 years before the highway down the Lochsa River would be officially opened and dedicated in 1962. In the meantime, the Forest Service and Civilian Conservation Corps (CCC) constructed a single lane "truck trail" along the route of the Lolo Trail from near Powell Ranger Station to Musselshell Meadows. This road, completed in 1934, would become known as the Lolo Motorway and was the last link in a motor vehicle road that would connect the Bitter Root Valley with the Clearwater Valley. Today, the Motorway provides convenient access to all portions of the Lolo Trail. In fact, the trail tread and roadway are tightly interwoven over most of the route.

From 1866 until 1934, the Lolo Trail played an important part in the history of the Clearwater River country. Like the aboriginal trail before it, it continued to be the most usable connection between the Bitter Root Valley in western Montana and the lower Clearwater Country of Idaho. Today, the trail lies unused since it was abandoned in 1934. In a few places, the tread has been eroded out of existence. In others, road construction and logging activities have obscured or destroyed it. However, the vast majority of the original tread is extant and efforts are under way to preserve its identity and history .

In 1985, the author began a research effort to document the trails of the Lolo Trail System. This included gathering documents from the National Archives in Washington D.C. as well as extended summer field trips along the route of the trail in Idaho. At first, he focused on the Lewis and Clark route but soon changed to the Bird-Truax Trail when he discovered that it could be well documented from historical sources and its tread could still be located on the ground. Since 1986, he has travelled every summer to Idaho to hike the ridges where the trail is located and has prepared detailed documentation on its location and history. Recently, his work on the Bird-Truax Trail has been essentially completed and he now focuses this effort on the aboriginal trail that was followed by Lewis and Clark.

TRAIL RESEARCH GOALS

In the beginning, the author's research was focused on the high-accuracy determination of the location of all extant tread segments of the Bird-Truax Trail and the Northern Nez Perces Trail as followed by Lewis and Clark. The goal was to locate the treads by field exploration and then accurately document them on 7.5 minute USGS topo maps. Initially, there was no information on how much of these old trail treads might still exist but field research quickly demonstrated that much of the old trails did still exist.

In the late 1980s, the author started working with the Clearwater National Forest and the Nez Perce Tribe on issues of preservation and management of the Lolo Trail System. This work led naturally to an expansion of the research goals to include: 1) accurate location of all the trail treads of the Lolo Trail System, 2) learning and documenting the history of the Clearwater country and, 3) preservation, documentation, and management activities on the Clearwater N. F. This effort has resulted in the production of approximately 18 megabytes of computer files and 46 map sets documenting the various aspects of the trail system.

The author has been able to do this trail research year around. In the winter, maps and documents from the National Archives are analyzed. Computer analysis of the archives information is used to correct errors and make predictions about the location of the trails. All information about the trail systems is recorded in word processor and spreadsheet computer files. In the summer, the maps and information prepared the previous winter are used to locate the trail treads. This extensive field work has been essential to the success of this work.

HISTORIC PRESERVATION
(The Author's Personal View)

The ancient route of the Lolo Trail deserves the public's best efforts toward the preservation of its cultural resources. Some of the campsites along the trail have been used for thousands of years. In addition, the early explorers, trappers, and miners used this route for nearly a century. Should you discover sites or artifacts during your travel along the trail, please make detailed notes of the location and report your findings to the Forest Archeologist, Clearwater National Forest, 12730 Hwy 12, Orofino, ID, 83544 or to the Forest Archeologist, Lolo National Forest, Building 24, Fort Missoula, Missoula, Montana 59801. Other agencies that would also appreciate your information are the Nez Perce Tribal Executive Committee, PO Box 305, Lapwai, Idaho 83540, the Idaho State Historic Preservation Office, Boise, and the Director, Orofino Historical Society Museum, Box 1454, Orofino, Idaho 83544.

The Many Routes

Documentation and preservation of the Lolo Trail is not simple because there are several somewhat parallel, but historically significant, routes. Going back approximately 200 years, the routes can be broadly classified as follows:

- 1.1700s to 1866. The *Khusahna Ishkit* (buffalo trail) or the *Northern Nez Perces Trail* used by many of the northwest tribes as a travel route between salmon fishing locations (weirs) on the clearwater tributaries and the buffalo hunting areas of central Montana. This route was used by the early trappers and miners in the Clearwater country. It was also used as the basis for most of the *Bird-Truax Trail* in 1866 and much of the buffalo trail was followed by Lewis and Clark.
- 2.1804 and 1805. The *Lewis and Clark Trail* that was traveled by the Corps of Discovery under the command of Meriwether Lewis and William Clark. Although they intended to follow the *Khusahna Ishkit*, they made considerable deviations due to a poor guidance, bad weather, and desperate circumstances. Therefore, the *Lewis and Clark Trail* should be considered as being both historically and physically separate from the *Khusahna Ishkit*.
- 3.1866-1907. The *Bird-Truax Trail* that was surveyed and built in 1866. It is this route that has become famous as the "Lolo trail" and for which the majority of the physical evidence still exists. It is also known as the *Lewiston Virginia City Wagon Road* to historians and archaeologists but it was never developed into a wagon road.
- 4.1907-1934 The *USFS Lolo Trail* came into being when the U.S. Forest Service cleared and marked the *Bird-Truax Trail*. There is physical evidence that some of the route was slightly modified during the years from about 1907 to 1934.
- 5.1934 to the Present. The *Lolo Motorway* (or Lolo "Truck Trail") was completed in 1934 and it made the *USFS Lolo Trail* obsolete. Much of the *Lolo Motorway* can still be travelled today although there are some short sections which have been closed due to logging, road reconstruction, or wildlife management.

Historical Preservation and Research Significance

Importance. The Lolo Trail routes, historical camping places, and removable artifacts are outstanding archaeological treasures of western U.S. history that deserve our most diligent preservation efforts. The actual routes themselves, and not just the archeological sites and artifacts, should be preserved. I believe that many

LOLO TRAIL: The Historic Land Bridge

archaeologists, historians, and local residents are unaware of how important the Lolo Trail routes have been and how amazingly well they have been preserved for much of their length. Successful cooperative efforts will produce important historical and archaeological preservation that applies to the Nez Perces, Lewis and Clark, early explorers and traders, gold miners, early commerce, the first railroad explorations, the very early USFS, and several generations of Clearwater Country residents. Future historians and archaeologists will find the Lolo Trail to be an excellent resource for research on the groups mentioned above.

Vandalism. From the point of view of historical preservation, any removal of artifacts or route changes to the trail constitute a type of vandalism. It is a fact of human nature that removable artifacts along the trail will rapidly disappear if the trail is cleared and well-marked. There is no reasonable way this can be avoided. Many are obvious and can be easily removed. If the exact location of camping places and other archaeological sites are publicly identified, they will first be combed with metal detectors and then probed and dug up by more determined "treasure hunters". Items along the trail that are easily removed are old signs, telephone wire, insulators, traps, etc.

Mismanagement. Something equally disagreeable and inappropriate is mismanagement⁵ by well-meaning government agencies and historical groups. For example, the USFS has proposed the rerouting of sections of the *Bird-Truax Trail* for the sake of "improving the grade and preventing erosion". This must not be done because it destroys the very things that need to be protected most -- the trail routes. There are only a very few places where the *Bird-Truax Trail* does not have an excellent grade. After all, it was surveyed as a wagon road and a very commendable job was done. The 1866 route saw considerable use for almost 70 years and 95 percent of it has survived quite nicely until recent years. Rerouting of the 1866 trail should be proposed only when a very strong case can be made that the benefits will far outweigh the permanent damage to the historic route. Another inappropriate activity is uninformed trail clearing by clubs and historical groups. They can be misled into clearing a game trail or other minor trail not actually on the route. For example, this has occurred west of Camp Martin, west of Cayuse Junction, and east of Lolo Camp Ground. The USFS practice of hiring contract trail crews to clear trails should not be used on the Lolo Trail routes. I recommend that the trail be surveyed only by full-time, permanent, career USFS personnel that have had special training in both archaeological preservation and federal policy on preservation. This training could be in the form of short courses given by USFS archaeologists and other trained professionals. The use of untrained, temporary, minimally-supervised trail crews will make it nearly impossible to properly protect artifacts. In summary, the actual trail routes should be preserved and are the easiest to preserve because hunters, hikers, and other public groups seldom do significant trail rerouting. It is only government agencies that have the resources to cause this type of damage and the power to prevent it. The next easiest to preserve are the camping places and archaeological sites because their precise locations do not have to be made public. General references to their location are adequate for interpretive guides. It is virtually impossible to protect the removable artifacts and it is best to have trained survey personnel copiously document them, remove them, and display them in a well-established museum.

Preservation Activities and Techniques

Physical Preservation. This is the most appealing in the short term but it is unrealistic to expect to physically preserve the routes for the long term. The press of humanity and economic livelihood will eventually affect even the remote Lolo Trail. The easiest to physically preserve are the actual routes themselves. This would require that no rerouting or changes of any kind be made. Trail clearing and erecting of signs would be held to a very minimum. Archaeological sites would not be identified except in restricted documents and definitely not with signs. The location of removable artifacts would not be publicly disclosed and those that would be easy to find would be properly documented, carefully removed, and preserved in a well-established public museum. The careful marking

⁵Current trail management practices must be modified to include the preservation of the historic nature of old trails. If modern concepts of erosion control, width, and grade are applied, our historic trails will become indistinguishable from modern trails. This change is essential.

LOLO TRAIL: The Historic Land Bridge

of each route must be done in such a way as to be as permanent as possible and yet as unobtrusive. Such methods as blazes, ribbons, and signs do not last long enough. Research will need to be done to determine an acceptable method. In the interim, a restricted number of carefully designed aluminum markers can be used for route segments away from the *Lolo Motorway*.

Route Documentation. I am interested in the preservation of the Lolo Trail both physically and in the use of documentation techniques. The documentation techniques I propose will provide the public and researchers with information that will be enjoyable and useful for many generations to come. For the past few years I have been engaged in documenting the routes by topographic survey and written observations. Foremost in my present research work is the very accurate location of the routes, 1866 place names, and geographical features on 7.5' topographic maps. I also have been doing some video and much color still-photo documentation and have over 2000 photos. I would also like to begin efforts to initiate and complete all topographic, photographic, video, and radionavigation surveys before any more irrecoverable physical changes occur on the existing trails and the *Lolo Motorway*.

Topographic Survey. This is a low-cost method I've developed for determining the location of the Lolo Trail routes on a 7.5' topographic map. Applying this method, I walk a segment of the route with a topographic map, compass, pace counter, and barometric altimeter. Using these tools, and the *Lolo Motorway* and prominent landmarks as a guide, I document the precise route on the topographic map. This method has yielded excellent results but a radionavigation survey is needed to improve the precision.

Radionavigation Survey. This reasonable-cost method is the next logical step in documenting the routes with a high degree of accuracy. The advantage of radionavigation methods over a manual survey is that they are lower cost. Currently, the fastest and most accurate way to do surveys is to use NAVSTAR-GPS.

Historical Preservation through Photography. In recognition of the fact that "perfect preservation" is impossible, and physical preservation is imperfect, I am proposing a methodology for preservation using documentation and photography. If properly done, this will provide many future generations with the opportunity to take a "trip" on the old Lolo Trail. In addition to copious verbal descriptions of the trail and landmarks, photographic and video surveys should be done both east and west. I am recommending that all the following be used:

1. Still photo, color.
2. Still photo, archival black & white.
3. Video tape.
4. Audio tape narratives.
5. High-resolution aerial photo survey.
6. Color slides

In fact, the photographic, video, and audio surveys could be done more than once by different organizations or agencies. Doing it more than once would provide a richer diversity of cultural and historical perspectives.

General Comments about Preservation

I am very concerned with the preservation of 1) all five routes in their present condition, 2) the geographical features, 3) the removable artifacts, and 4) the archaeological sites. Well-meaning trail renovation by the USFS and historical groups could significantly reduce the historical and archaeological value of the routes. Of equal importance is the protection of archaeological sites from "treasure hunting" activities. I have located several of the early camping sites that are still undisturbed by road building, elk hunting, logging, or "treasure hunting" activities. I'm reluctant to disclose these locations to the general public by publishing accurate maps and am undecided as to how to document them for historical and scientific purposes. A definite policy needs to be implemented that addresses the confidentiality and eventual use of this type of information.

LOLO TRAIL: The Historic Land Bridge

Another item of concern is the preservation of the *Lolo Motorway*. It has existed since 1934 and deserves to be recognized and prized for its historical value. It was a fulfillment of the wagon road "dream" of 1866. In addition, the *Lolo Motorway* directly overlays the *Bird-Truax Trail* for many short segments throughout most of its route. This is testimony to the quality of the 1866 survey for the Lewiston Virginia City Wagon Road. In many other places, the trail is only a few feet above or below the Motorway. In some places, a part of the trail can still be seen on the very edge of the upper part of the Motorway. Widening the Motorway will destroy the historic trail in these places.

General Recommendations for Trail Management

Protective Boundaries. After all of the routes have been documented, topographic maps should be prepared which show the exact location of the routes. A protective boundary should be identified for each route to preserve it from road building, logging, campsite development, recreational development, or other activities which might destroy a portion of the route. When the routes must be crossed with new roads, the roads should cross at right angles and not parallel the Lolo Trail route too closely. To date, the USFS has done a commendable job of avoiding timber sales and road building that destroy the trail. Most, if not all, of the damage to date has been on BLM land and Burlington Northern ("NP") land. The topo maps showing the routes and protective boundaries should be distributed to all groups and agencies with the encouragement to preserve the trails by observing the boundaries.

Erosion Control and Grade Changes. Modern erosion control and trail/road grade standards are much too stringent to apply to the historic routes of the Lolo Trail. If an exception for these routes is not made, their historic nature will be severely and irreparably damaged. Erosion is not a serious problem for the Lolo Trail. The route of 1866 was surveyed to a grade suitable for a wagon road and presents very few steep grades or potentially serious erosion problems. This, coupled with the fact that trail traffic will continue to be very light for many years to come would seem to indicate that all parties concerned should take a "wait and see" attitude concerning any rerouting. In the meantime, the segments of the routes that will be identified for moderate recreational use need to be carefully monitored and evaluated to see if erosion levels are acceptable in trade for maintaining the historic nature of the route.

Interpretive Signs. The Lolo Motorway trail should be sparingly marked with simple signs that indicate the Bird-Truax names of 1866. In key places, more elaborate signs could tell more of the history of the trail -- much like the Lewis and Clark signs do now. The trail should not have signs.

Preservation of Removable Artifacts. Leave hard-to-find artifacts in place. Document and remove the obvious ones and display them in a museum. One practical example is the existence of old #9 telephone wire and insulators at several locations on the ground along the trail. I have made good use of this wire to trace the trail through thick brush and to relocate it when I had otherwise lost it. I hope that this wire can remain in place undisturbed by the USFS or the public. It has already lain along the trail for 50 years without being bothered.

Trail Renovation and Maintenance Recommendations

The following classifications are being recommended for the trail routes. A set of classifications for the Motorway route have not yet been developed.

1. Un-maintained (U) -- no clearing, rerouting, regrading, or marking
except a simple marker where the route crosses the *Lolo Motorway*. Location identification by longitude/latitude, photo survey, and 7.5' topo map. Other location documentation methods may be needed for research or archaeological purposes.
2. Natural (N) -- minimal clearing with very minimal regrading and no rerouting. Minimum marking with historical place names from Bird-Truax and Lewis and Clark documents. Location identification only by clearing and simple markers where the route crosses the

LOLO TRAIL: The Historic Land Bridge

Motorway.

3. Primitive (P) -- This is the current USFS classification, "Way", for a marked route or primitive foot trail.
4. Recreational (R) -- Maintained annually and made suitable for travel by hikers of most skill levels. Well marked with many interpretive signs.
5. Mainline (ML) -- This is the current USGS classification, "Trail", which is a travelway limited to use by hikers, stock, and vehicles less than 40 inches in width. Some mainline trail are closed to stock or motorized use.

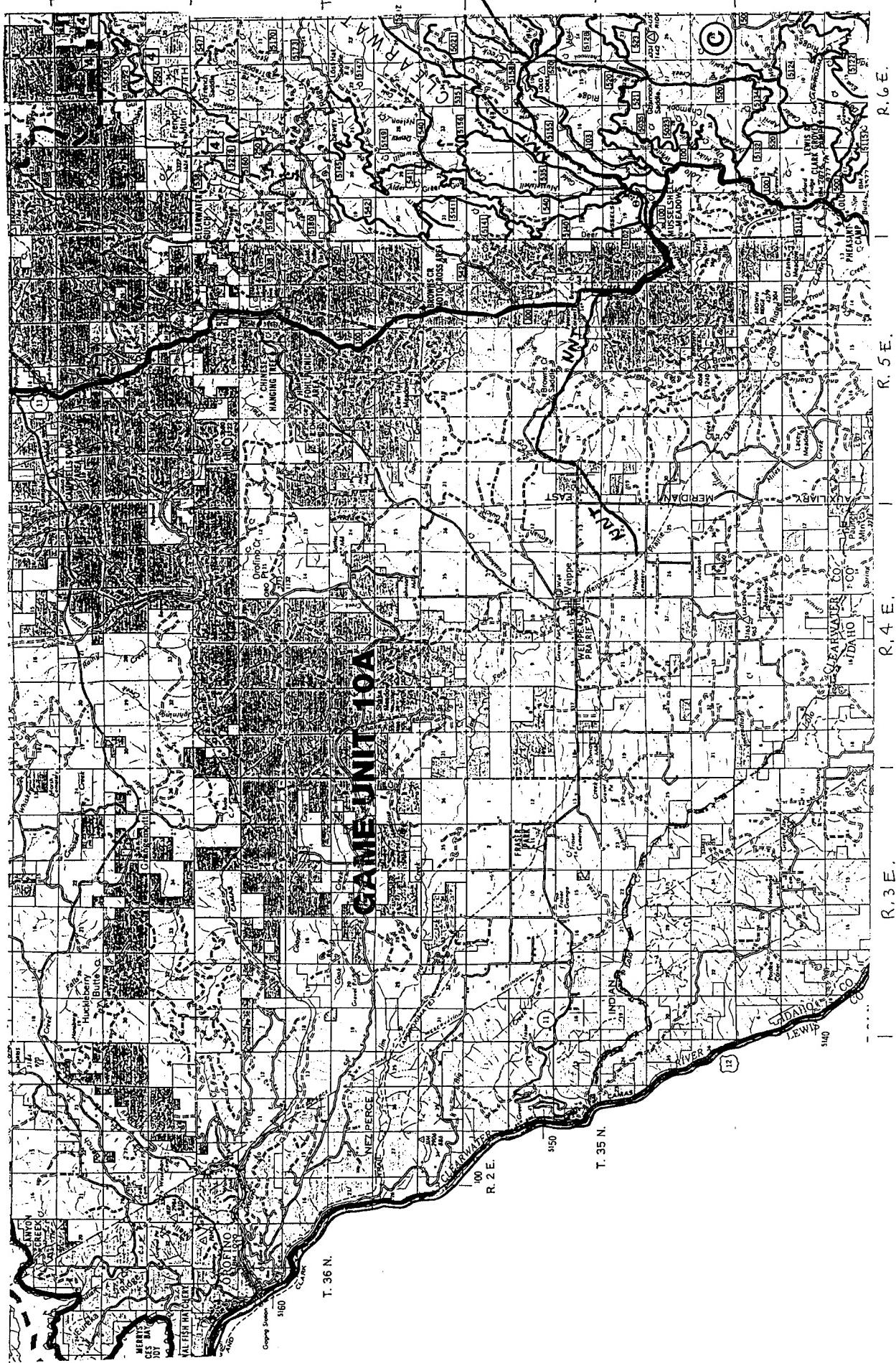
Travel along the historic routes would be limited to the following:

- a) Hikers: U, N, P, R, and ML.
- b) Stock: P, and ML.
- c) Motorized Vehicles (width less than 40 inches): ML only.

FUNDING FOR PRESERVATION ACTIVITIES

I plan to ask for funding from several groups including the Forest Service USDA, Smithsonian, National Geographic, U.S. Department of the Interior - BLM, Lewis and Clark Trail Heritage Foundation, local historical groups, etc. These funds would be used primarily for doing the photographic and radionavigation surveys and for the creation of archival-quality research documentation.

**MAPS
of the
NORTHERN NEZ PERCES TRAIL**



Steve Russell
1975

T.37.

364

, 35 N

PIERCE

GAME UNIT 12

R. 7 E., 1 R. 8 E.

R. 9 E.

R. 10 E.

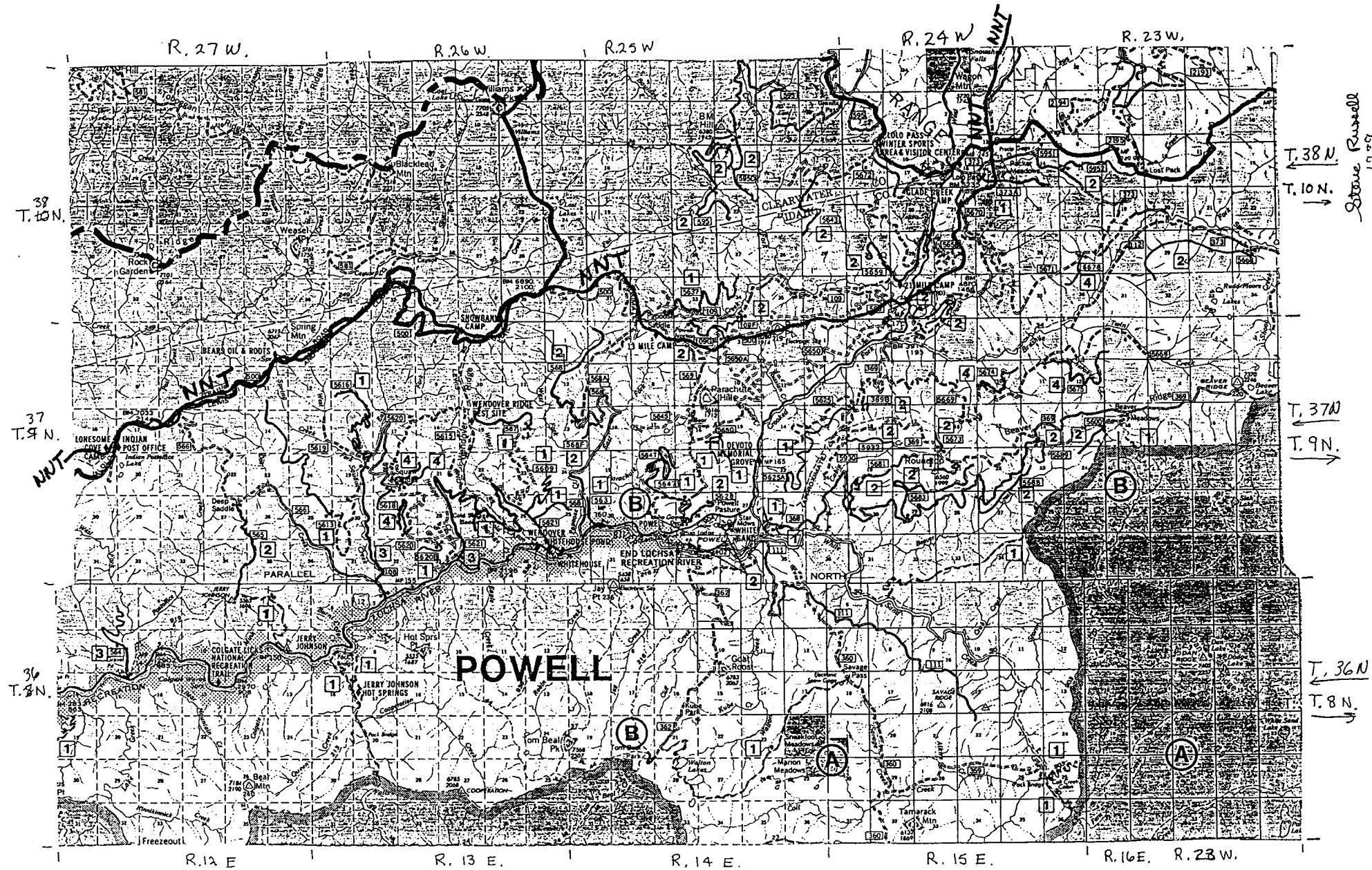
R. H. E.

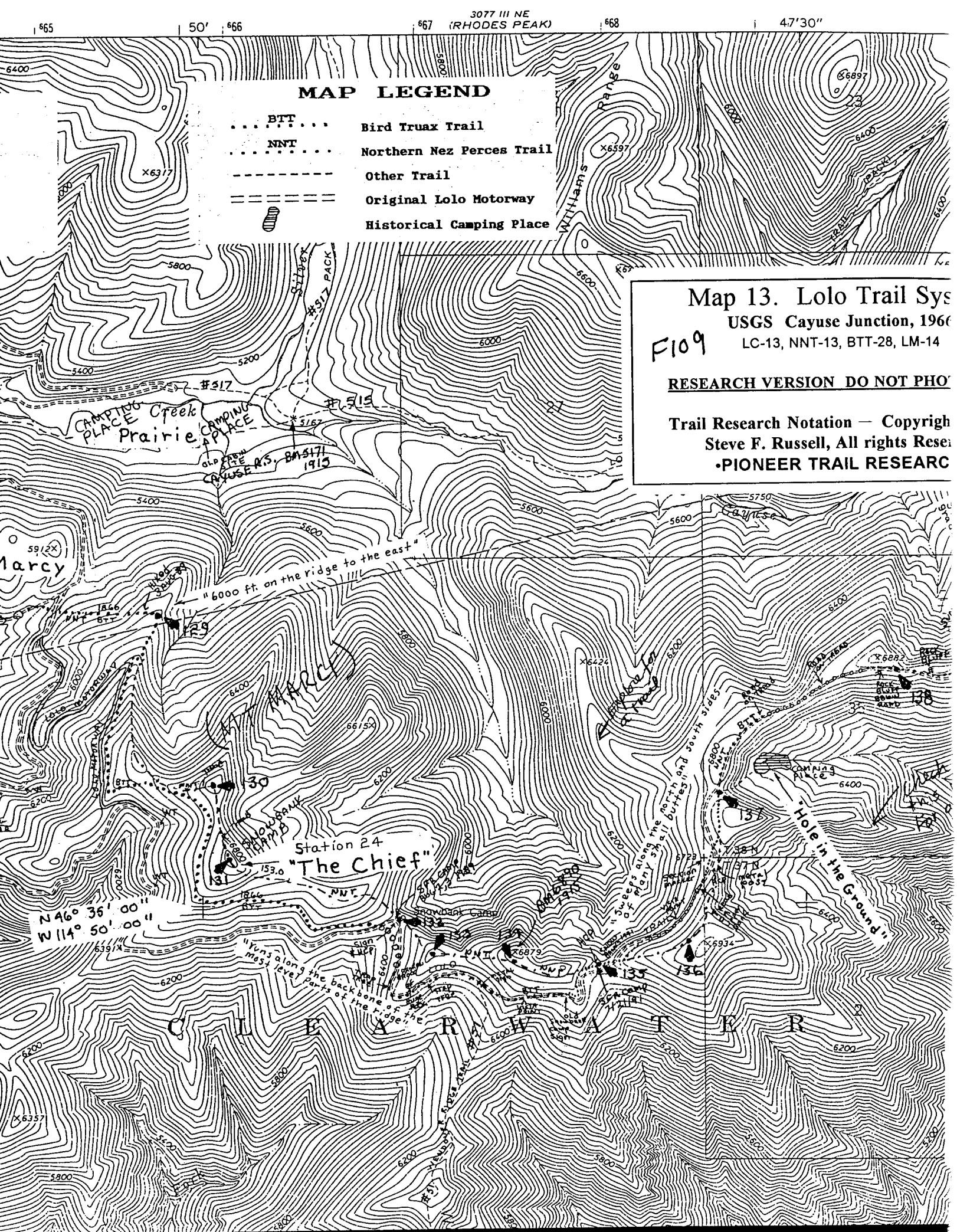
R 7 E.

R.8 E.

R. 9 E

R.10 E





UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

14°37'30" 682000m.E.
30"

| 683

LOLO, MONT. 34 MI.
LOLO HOT SPRINGS, MONT. 9 MI.

35'

| 68

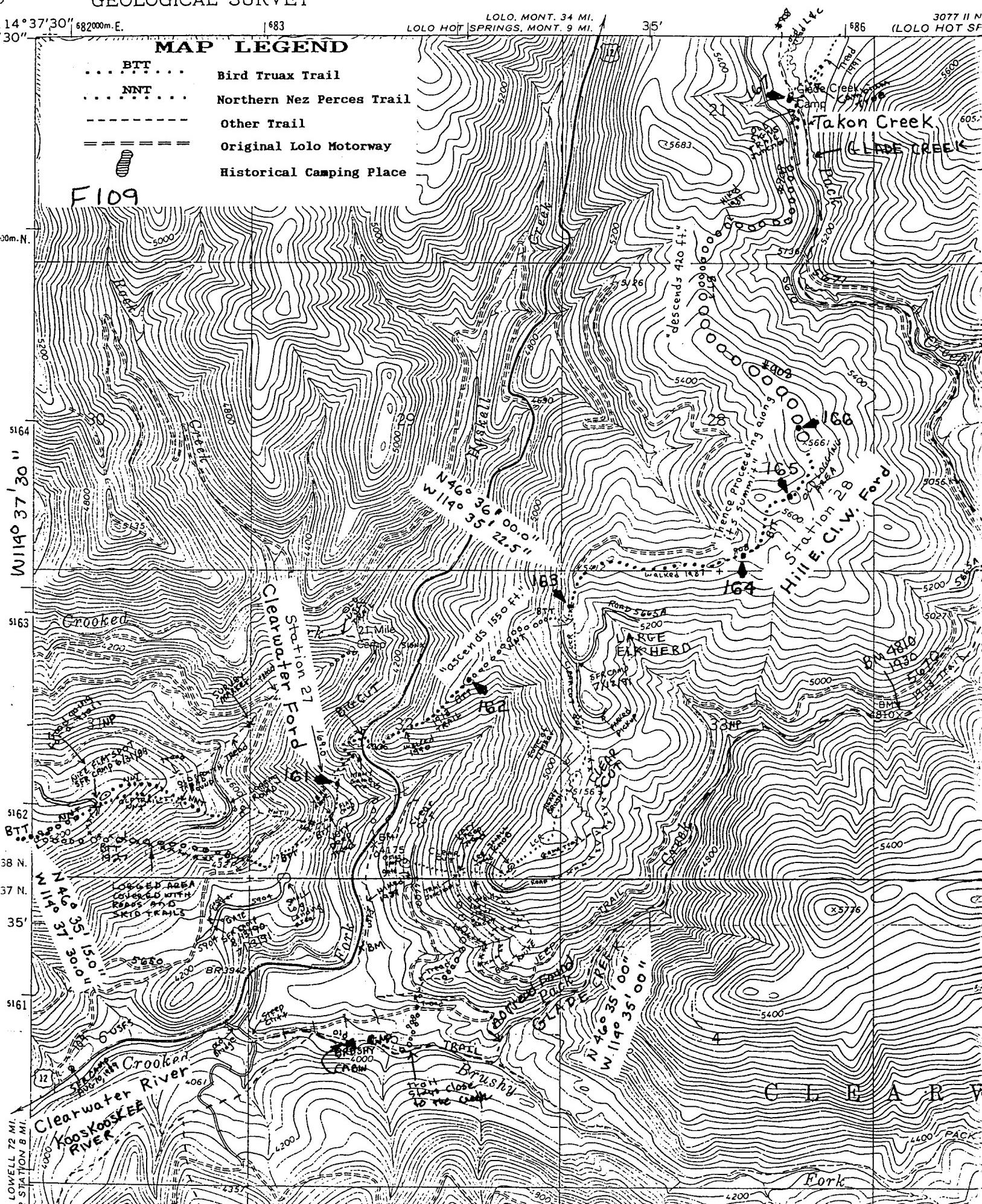
3077 II N
(LOLO HOT SF)

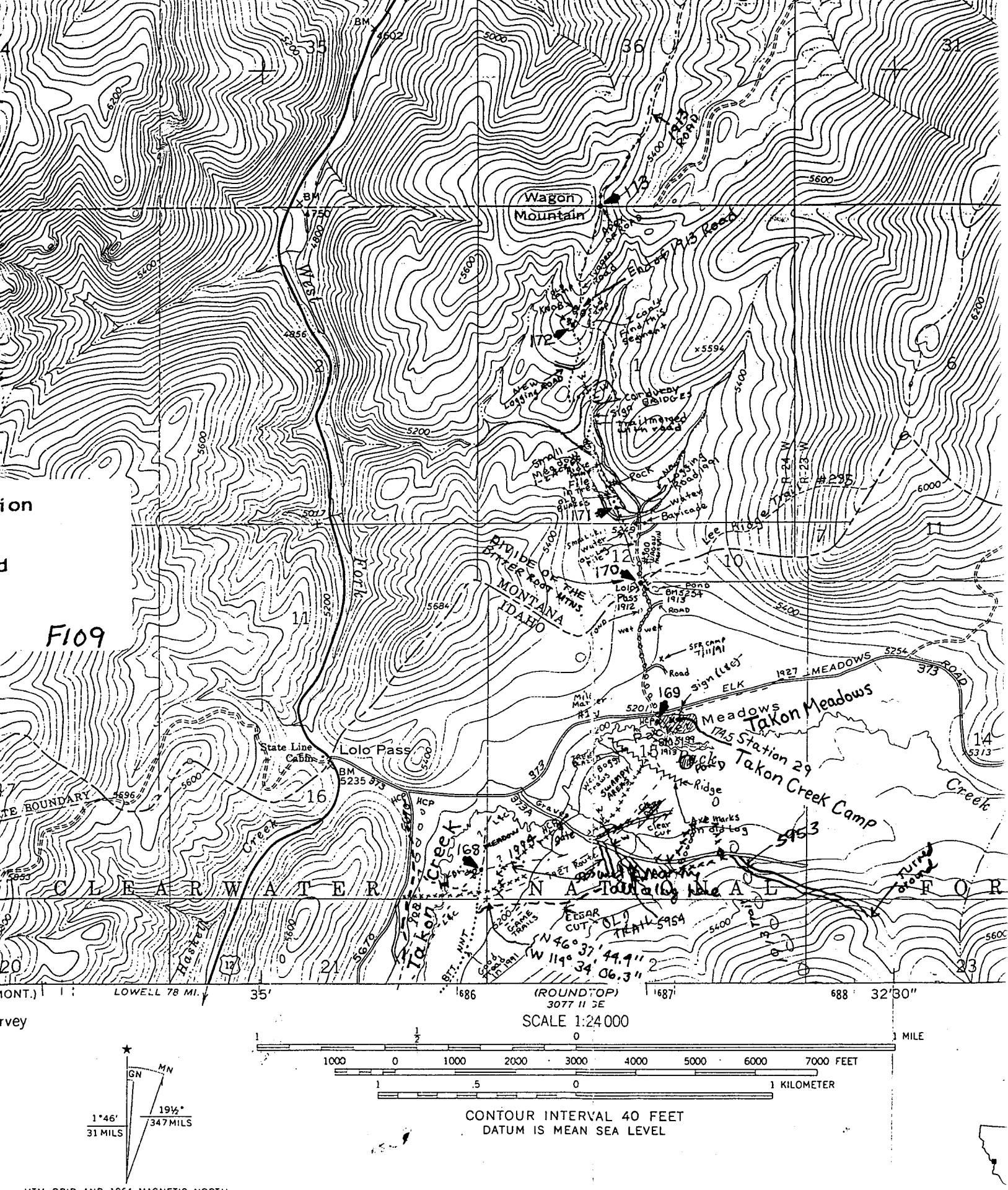
MAP LEGEND

- BTT Bird Truax Trail
 NNT Northern Nez Perces Trail
 - - - - - Other Trail
 = = = = = Original Lolo Motorway

 Historical Camping Place

F109





UTM GRID AND 1964 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D. C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

The Author

The author, a native of Idaho and Montana, is an Associate Professor of Electrical Engineering at Iowa State University in Ames, Iowa. He was born in Lewiston, Idaho and spent his growing years at Lewiston, Weippe, Orofino, Lochsa Lodge (Powell), the Bitter Root Valley, and White Sulphur Springs, Montana. He earned a Bachelor of Science degree in Electrical Engineering at Montana State University in Bozeman. Upon graduation, he moved his family to Iowa where he worked for Collins Radio Co. in Cedar Rapids and did off-campus graduate work at Iowa State. After earning a PhD at ISU, he continued as a practicing engineer in industry for another eight years until, in 1984, he decided to return to ISU.

Steve's family ties to Idaho and Montana remain strong and he and his family return each year for several weeks in the summer. It is these trips that afford him the opportunity to "pound the brush" in search of faint segments of the remaining tread of historical trails and wagon roads.

It was in 1984 that Steve started his avocation of pioneer trail research. His initial interest in the tread followed by Lewis and Clark eventually expanded to include all the major pioneer trails of Western Montana and Northern Idaho. For the Montana Statehood Centennial Year, 1989, he prepared map displays for the Meagher County Historical Association, the Bitter Root Historical Society, and St. Mary's Mission. His 1989 centennial story, "Traveling the Carroll Trail" appeared in the June 1, 1989 edition of the Meagher County News and received a second place award for Best Single Centennial Story in the Montana Better Newspaper Contest.

For most of his research, he has concentrated his efforts on the Lolo Trail System that encompasses the trail treads now known as the Northern Nez Perces Trail, the Lewis and Clark Trail, the Nee-Mee-Poo Trail, the Bird-Truax Trail, and the Virginia City Lewiston Wagon Road. Steve's goal has been to precisely locate the extant trail tread and accurately document its location and existence. His research method involves computer analysis of archival records, map and navigation analysis, and field exploration. During his many years of field work, he has taken hundreds of photographs of the trail treads and various sites along the trail. Today, Steve's involvement with the Lolo Trail System has expanded to include working with the Clearwater National Forest and the Nez Perce Tribe on management and preservation planning.

Steve plans to continue his trail research for many years to come with a goal of documenting and preserving the historic trails of Northern Idaho and Western Montana. He welcomes your interest in historic trails and invites you to contact him at Iowa State University.